

(19) World Intellectual Property  
Organization  
International Bureau



549316

(43) International Publication Date  
30 September 2004 (30.09.2004)

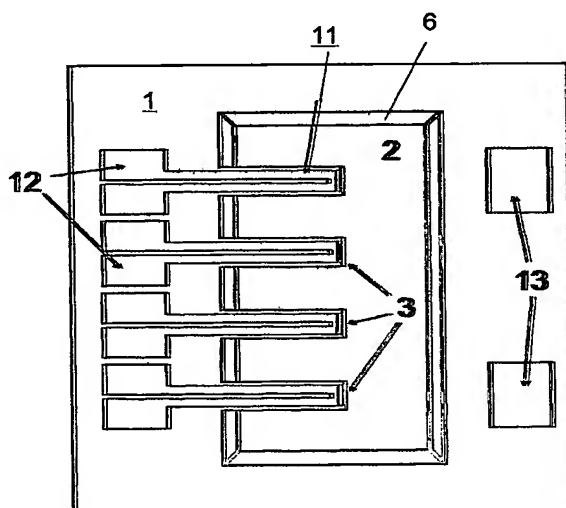
PCT

(10) International Publication Number  
**WO 2004/083802 A2**

- (51) International Patent Classification<sup>7</sup>: **G01N**
- (21) International Application Number:  
**PCT/DK2004/000185**
- (22) International Filing Date: 18 March 2004 (18.03.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
PA 2003 00427 18 March 2003 (18.03.2003) DK
- (71) Applicant (for all designated States except US): **CAN-TION A/S [DK/DK]; Ørstedes Plads, Building 347, DK-2800 Lyngby (DK).**
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **THAYSEN, Jacob [DK/DK]; Høthørs Plads 7, 3.tv., DK-2200 København N (DK). SCHEEPER, Patrick, Richard [NL/DK]; Nærumgårdsvej 59, DK-2850 Nærum (DK).**
- (74) Agent: **NKT RESEARCH & INNOVATION A/S; Blokken 84, DK-3460 Birkerød (DK).**
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:  
— without international search report and to be republished upon receipt of that report

[Continued on next page]

(54) Title: A CHEMICAL SENSOR



(57) Abstract: The invention relates to a chemical sensor comprising one or more cantilever sensor units with a piezoresistive element for direct read out. The sensor comprises a primary substrate carrying the cantilevers and with a primary cavity and a primary connecting surface at least partly surrounding said cavity. The cantilevers protrude into the primary cavity. The piezoresistive elements are electrically connected to primary connecting pads on the primary connecting surface. The sensor also comprises a secondary connecting pads, corresponding to the primary connecting pads, on a secondary connecting surface corresponding to the primary connecting surface. The primary connecting surface and the secondary connection surface are mounted to each other so that said primary connecting pads and said secondary connecting pads are direct mounted to each other, preferably in a flip chip mounting.

WO 2004/083802 A2

BEST AVAILABLE COPY



---

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*